

QY 898 SPARLAYQDKGVHLHNEVKVSVILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 957  
Db 1321 SPARLAYQDKGVHLHNEVKVSVILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 1380  
QY 958 PSRTARAITTRSGQTLISKVWYNCP 981  
Db 1381 PSRTARAITTRSGQTLISKVWYNCP 1404

RESULT 7  
AAB29773  
ID AAB29773 standard; protein; 1404 AA.  
XX  
AC AAB29773;  
XX  
DT 15-JUN-2007 (revised)  
DT 28-FEB-2001 (first entry)  
XX  
DE Human megakaryocyte stimulating factor (MSF), SEQ ID NO:1.  
XX  
KW Human MSF; megakaryocyte stimulating factor; tribonectin;  
KW alternative splicing; joint boundary lubricant; O-linked oligosaccharide;  
KW osteoarthritis; tribosupplementation; tissue adhesion inhibition;  
KW friction coefficient reduction; gene therapy; antiarthritic; osteopathic;  
KW BOND\_PC; megakaryocyte stimulating factor; MSF;  
KW megakaryocyte stimulating factor MSF [Homo sapiens]; G05203; G05615;  
KW G08283.  
XX  
OS Homo sapiens.  
XX  
PN WO200064930-A2.  
XX  
PD 02-NOV-2000.  
XX  
PF 24-APR-2000; 2000WO-US010953.  
XX  
PR 23-APR-1999; 99US-00298970.  
XX  
PA (RHOD-) RHODE ISLAND HOSPITAL LIFESPAN PARTNER.  
XX  
PI Jay GD;  
XX  
DR WPI; 2001-024673/03.  
DR N-PSDB; AAC81498.  
DR PC:NCBI; gil572721.  
DR PC:SWISSPROT; Q92954.  
XX  
PT Novel tribonectin polypeptide useful as lubricant for treating  
PT osteoarthritis, comprises O-linked lubricating moiety.  
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PS Claim 3; Page 7; 47pp; English.  
XX  
CC The invention relates to a human tribonectin which is a product of  
CC alternative splicing of the human MSF (megakaryocyte stimulating factor)  
CC gene. The tribonectin has at least one O-linked oligosaccharide  
CC lubricating moiety and has a polypeptide sequence comprising 1-76 repeats  
CC of a motif having at least 50% identity to the sequence KEPAPTT  
CC (AAB29774). The invention also relates to a nucleic acid encoding a human  
CC MSF-derived tribonectin; a biocompatible composition comprising a human  
CC tribonectin for inhibiting tissue adhesion formation; and a method of  
CC diagnosing osteoarthritis or a predisposition to osteoarthritis by  
CC measuring the amount of MSF or its fragment in a biological sample of a  
CC mammal, wherein an increased amount of MSF compared to a control  
CC indicates the presence of or predisposition to developing osteoarthritis.  
CC The tribonectin and DNA encoding it are useful in the treatment of  
CC osteoarthritis, where they may be used for lubricating mammalian joints,  
CC such as articulating joints of humans, dogs or horses. The tribonectin,  
CC when formulated as a membrane, foam, gel or fibre, is useful for  
CC inhibiting adhesion between two surfaces such as the injured tissues of a  
CC mammal, where the injury is caused by a surgical insertion or trauma, or  
CC an artificial device e.g., an orthopaedic implant. In particular, one of  
CC the surfaces is pericardial tissue. DNA encoding a tribonectin may be  
CC used in gene therapy. The present sequence represents human MSF  
CC  
CC Revised record issued on 15-JUN-2007 : Enhanced with precomputed  
CC information from BOND.  
XX  
SQ Sequence 1404 AA;

Query Match 95.8%; Score 4991.5; DB 4; Length 1404;  
Best Local Similarity 69.9%; Pred. No. 3.7e-252;  
Matches 981; Conservative 0; Mismatches 0; Indels 423; Gaps 1;

QY 1 MAWKTLPIYLLLLLSVFVIQQVSSQDLSSCAGRCGEGYSRDATCNCQHYMECCPDF 60  
Db 1 MAWKTLPIYLLLLLSVFVIQQVSSQDLSSCAGRCGEGYSRDATCNCQHYMECCPDF 60  
QY 61 KRVCTAELSCKGRCPESFERGRECDCAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP 120  
Db 61 KRVCTAELSCKGRCPESFERGRECDCAQCKKYDKCCPDYESFCAEVHNPTSPPSSKKAP 120  
QY 121 PPSGASQTIKSTTKRSPKPPNKKTKKVIIESEEITEHVSVENQESSSSSSSSSSSTIW 180  
Db 121 PPSGASQTIKSTTKRSPKPPNKKTKKVIIESEEITEHVSVENQESSSSSSSSSSSTIW 180  
QY 181 KIKSSKNSAANRELQKKLVKDNKKNRKKKPTKPPVDEAGSGLDNGDFKVTTPDTST 240

please scan  
search notes

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Db      181 KIKSSKNSAANRELQKKLVKDNKKNRTKKKPTPKPPVVDEAGSGLDNGDFKVTTPDTST 240
Qy      241 TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSILTUNKETTIVETKETTITNKQSTSDG 300
Db      241 TQHNKVSTSPKITTAKPINRPSLPPNSDTSKETSILTUNKETTIVETKETTITNKQSTSDG 300
Qy      301 KEKTTSAKETQSIEKTSKDLAPTSKVLAKPTPKAETTTKGPAITTPKEPTPTTPKEPAS 360
Db      301 KEKTTSAKETQSIEKTSKDLAPTSKVLAKPTPKAETTTKGPAITTPKEPTPTTPKEPAS 360
Qy      361 TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTTPKEPAPTTT--- 417
Db      361 TTPKEPTPTTIKSAPTTPKEPAPTTTKSAPTTPKEPAPTTTKEPAPTTTPKEPAPTTTKEP 420
Qy      418 ----- 417
Db      421 APTTTKSAPTTPKEPAPTTPKKPAPTTTPKEPAPTTTKEPTPTTPKEPAPTTKEPAPTTPK 480
Qy      418 ----- 417
Db      481 EPAPTAPKKPAPTTTPKEPAPTTTPKEPAPTTTKEPSPTTPKEPAPTTTKSAPTTPKEPAP 540
Qy      418 ----- 417
Db      541 TTKSAPTTPKEPSPTTTKEPAPTTTPKEPAPTTPKKPAPTTTPKEPAPTTTPKEPAPTTTKKP 600
Qy      418 ----- 417
Db      601 APTAPKEPAPTTPKETAPTTPKKLTPTTPEKLAPTTPEKPAPTTPEELAPTTPEEPTPTT 660
Qy      418 ----- 417
Db      661 PEEPAPTTPKAAAPNTPKAPAPTTTPKEPAPTTTPKEPAPTTPKETAPTTPKGTAPTTLKEP 720
Qy      418 ----- 417
Db      721 APTTPKKPAPKELAPTTTKEPTSTTSKDPAPTTTPKGTAPTTPKEPAPTTTPKEPAPTTPKG 780
Qy      418 ----- 417
Db      781 TAPTTLKEPAPTTPKKPAPKELAPTTTKGPTSTTSKDPAPTTTPKETAPTTPKEPAPTTPK 840
Qy      418 KPAPTTTETPPPTTSEVSTPTTTKEPTTIHKSPESTPELSAETPKALENSPKPEGVPT 477
Db      841 KPAPTTTETPPPTTSEVSTPTTTKEPTTIHKSPESTPELSAETPKALENSPKPEGVPT 900
Qy      478 TKTPAATKPEMTTAKDKTTERDLRTTPETTTAAPKMTKETATTTTEKTTESKITATTTQV 537
Db      901 TKTPAATKPEMTTAKDKTTERDLRTTPETTTAAPKMTKETATTTTEKTTESKITATTTQV 960
Qy      538 TSTTTQDTTFFKITTLKTTTLAPKVTTTKKTIITTEIMNKPEETAAPKDRATNSKATTPK 597
Db      961 TSTTTQDTTFFKITTLKTTTLAPKVTTTKKTIITTEIMNKPEETAAPKDRATNSKATTPK 1020
Qy      598 PQKPTKAPKKPTSTKKPKTMPRVKPKTTPTRKMTSTMPELNPTSRIAEAMLQTTTRPN 657
Db      1021 PQKPTKAPKKPTSTKKPKTMPRVKPKTTPTRKMTSTMPELNPTSRIAEAMLQTTTRPN 1080
Qy      658 QTPNSKLVEVNPKSEDAGGAETPHMLLRPHVFMPEVTPDMDYLPRVFNQGIINPMLS 717
Db      1081 QTPNSKLVEVNPKSEDAGGAETPHMLLRPHVFMPEVTPDMDYLPRVFNQGIINPMLS 1140
Qy      718 DETNICNGKPVGLTTLRNGTLVAFRGHYFWMLSPFSPSPARRITEVWGIPSPIDTVFT 777
Db      1141 DETNICNGKPVGLTTLRNGTLVAFRGHYFWMLSPFSPSPARRITEVWGIPSPIDTVFT 1200
Qy      778 RCNCEGKTFPFKDSQYWRFTNDIKDAGYKPIFKGFGGLTGQIVAALSTAKYKNWPESVY 837
Db      1201 RCNCEGKTFPFKDSQYWRFTNDIKDAGYKPIFKGFGGLTGQIVAALSTAKYKNWPESVY 1260
Qy      838 FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGEMTQVRRRRFERAIGPSQHTIRIQY 897
Db      1261 FFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGEMTQVRRRRFERAIGPSQHTIRIQY 1320
Qy      898 SPARLAYQDKGVLHNEVKVSIILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 957
Db      1321 SPARLAYQDKGVLHNEVKVSIILWRGLPNVVTSAISLPNIRKPDGYDYAFSKDQYYNIDV 1380
Qy      958 PSRTARAITTRSGQTLISKVWYNCP 981
Db      1381 PSRTARAITTRSGQTLISKVWYNCP 1404

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## RESULT 8

AAB60568

ID AAB60568 standard; protein; 1404 AA.

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AC AAB60568;

XX

DT 15-JUN-2007 (revised)

DT 27-APR-2001 (first entry)

XX

DE Human megakaryocyte stimulating factor (MSF, CACP).

XX

KW Human; CACP protein; camptodactyly-arthropathy-coxa vara-pericarditis;

KW MSF; megakaryocyte stimulating factor; synovial lubricant;